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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Anush Kumar

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EXAMINER

ANDERSON, FOLASHADE

ART UNIT

PAPER NUMBER

3623

NOTIFICATION DATE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficemonitor@woodcock.com

Office Action Summary	Application No. 10/699,419	Applicant(s) KUMAR ET AL.	
	Examiner FOLASHADE ANDERSON	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/08/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 16, 17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 16, 17, 19, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is made FINAL in response to Applicant's submission filed on 10/08/2010.

Claims Status

2. Currently, claims 1-3, 5-7, 16, 17, 19, and 20 are pending. Claims 4, 8-15, 18 and 21-25 are previously canceled. Claims 1 and 16 are amended.

Response to Arguments

3. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues "the cited portions of Gleason, Surasinghe, and Scheurich fail to disclose or suggest that the computer constructs a query to evaluate at least one of the business rules, wherein construction of the query is delayed within a rules runtime to allow a relevant portion of each of a plurality of files of a data set to be determined, the relevant portion of each of the plurality of files based upon the query, wherein only the relevant portion of each of the plurality of files is brought into a memory of the rules engine and the query is executed over the relevant portion of each of the plurality of files thereby reducing the time for execution of the query, as recited in claim[s] 1 [and 16]," see remarks page 6 and 9.

It is noted that in the Examiner's interview summary mail 10/14/2010 stated "It was agreed that the cited portions of Scheurich do not teach the purposed claim amendment." However upon careful consideration of the amendments in light of the

teachings of the prior art of Scheurich it was determined that Scheurich renders the claimed limitation obvious.

This determination was based on the following reasons:

(a) The limitation of **“to allow a relevant portion of each of a plurality of files of a data set to be determined”** is not a positively recitation. Therefore it is unclear why the **“construction of the query is delayed within a rules runtime,”** in the amended portion of the claim. The specification states that the “query is considered delayed because the statement is generated at the last possible moment in the rules runtime to ensure that incoming data is well-known before the query statement is completed. This delayed query construction timing ensures that the query statement is generated for efficient execution, can succeed based on the incoming data, and is optimized to retrieve and search only the relevant data needed so as to reduce the time for query execution and reduce the need for additional secondary queries,” see specification par. 0047. While the specification is not to be read into the claim, it is understood that in light of the specification that the delay is made to ensure all relevant data is available for the query’s execution.

Scheurich expressly teaches “[s]ome of the data may be periodically unavailable, obsolete, or busy. When asked to run a query, the query executing software can delay the query or re-schedule it for a more appropriate time so that the query results will be more complete” (col. 13, lines 13-17), which is interpreted to be the equivalent of the of the amended claim’s limitation in light of the specification. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the software

within the logic's runtime of Scheurich determines if the query will produce a complete data result for the user, if not the system delays the query until all appropriate (relevant) data is available.

With respect to this cite portion of Scheurich Applicant argues "Scheurich fails to disclose or suggest delaying construction of the query within a rules runtime to allow a relevant portion of each of a plurality of files of a data set to be determined, as now claimed. Rather, in Scheurich, the query has already been generated, and the query can be delayed or rescheduled by the query executing software to a more appropriate time," see remarks page. 8. However it is pointed out that in the art of data querying constructing and running broadly interpreted are used interchangeably i.e. synonyms.

Applicant is asking that the office give a narrower reading to the limitation than the claim language or the specification supports. In that constructing should be limited to mean generating/building; however to generate/build a query also broadly interpreted means to run or execute. This is evident in Applicant's wherein clause "**wherein only the relevant portion of each of the plurality of files is brought into a memory of the rules engine and the query is executed over the relevant portion.**" Speaking in terms of the antecedent basis for the query is provided in the same delayed query construction thus the delay and execution are provided to the same query. Thus when given its broadest reasonable interpretation the Scheurich disclosure renders delayed query construction obvious.

(b) The amended limitation of "**thereby reducing the time for execution of the query,**" is unbounded and therefore indefinite in its generalization of the execution time

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reduction. The specification offers no concrete showing of what is bounded by this “reducing” portion other than the time is reduce. No weight has been given to this portion of the claim and is viewed as an intended use recitation.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically both claims include the claim language of **"to allow."** It is unclear if this step is a requirement since it is not a positive requirement.

6. The term **"thereby reducing the time for execution of the query"** in claims 1 and 16 is a relative term which renders the claim indefinite. The term **"reducing"** is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicant fails to show how the reduction is measured and offer no bounds for this reduction.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5, 7 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gleason (US Publication 2003/0195762 A1) in view of Surasinghe (US Patent 7,124,145 B2) and Scheurich et al (US Patent 7,174,342 B1).

Claim 1

Gleason teaches **a computer-implemented method of tracking operations in an automated business process, the method comprising:**

- **The computer defining a plurality of operations at a plurality of nodes in a business process** (0003, the invention features a workflow method including specifying data source, invoking a decision-tree based map using icons that represent elements of business rules 0013 a map representing a business process flow with input and output, a start and end activity destination, activity assignments, and a rule set linked to each of the activity assignments, and 0022, users of the system are able to define a process and associate the responsible parties, where the Examiner understands a node to be a connection point in a process for example those of the decision tree);
- **The computer executing a workflow comprising the operations** (0010 executing the selected activities (operations) and 0017 system enables the execution of business process application (operations));
- **The computer applying a plurality of business rules to the workflow at the nodes to affect the operations, wherein the plurality of business rules are applied using a rules engine integrated with a**

workflow processor, and wherein the rules engine and the workflow processor are implemented in a same processor of the computer (0019 web service is a rule or action within a rule that interacts within an external system via the web, for the purpose of querying and retrieving a response from an external system, which response is the input to the next rule or activity within the business process and 0004 storing and evaluating the business rules in a server-based engine);

- **The computer changing the business rules and applying the changed business rules during execution of the workflow** (0025 individual rules and sets of rules that are configurable by the use of variables assigned and 0022 the user can generate a set of variables that in addition to being one output of the application, can control decisions and flow of the business process thus making the process dynamic and adaptive to external business conditions, where the Examiner understands dynamic to indicate a continuous action i.e. during execution);
- **The computer providing a correlation between the business rules applied to the nodes and the corresponding affected operations to track operations within the workflow** (0003 linking input from the input and output forms to dynamic variables within the decision-tree based map and 0007 tracking a status of the business process) **providing a correlation between the business rules applied to the nodes and the corresponding affected operations to provide tracking of operations**

within the workflow, the correlation begin provided by implementing an integrated interface control layer that provides an integrated user interface to the business rules engine and the workflow process engine for enabling performance monitoring of the operations workflow (0017, 0085 and figure 2).

- **the computer constructing a query to evaluate at least one of the business rules** (0019 where the web service does the querying 0004, 0017 for the purpose of evaluating the business rules in a server-based engine) **and brought into a memory of the rules engine** (0017-0019).

Gleason does not expressly teach the limitation of **without stopping the execution of the workflow**.

Surasinghe teaches **without stopping the execution of the workflow** (col. 2, lines 42-51; where dynamically implies real-time i.e. without stopping) in an analogous art for the purpose of implementing business plans.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Gleason to include the without stopping the execution of the workflow as taught be Surasinghe to allow the user to accommodate new business plans without having to rewrite entire software applications (Surasinghe col.1 lines 51-55). Further the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Neither Gleason nor Surasinghe teaches **wherein construction of the query is delayed within a rules runtime to allow a relevant portion of each of a plurality of files of a data set to be determined, the relevant portion of each of the plurality of files based upon the query, wherein only the relevant portion of each of the plurality of files is brought into a memory of the rules engine and the query is executed over the relevant portion of each of the plurality of files thereby reducing the time for execution of the query.**

Scheurich teaches **wherein construction of the query is delayed within a rules runtime to allow a relevant portion of each of a plurality of files of a data set to be determined** (col. 12, lines 33-35 and col. 13, lines 13-17), **the relevant portion of each of the plurality of files based upon the query**, (col.2, lines 14-24 and col. 3, lines 40-44; where relevant data is defined in the query and figs. 14A-14B) **wherein only the relevant portion of each of the plurality of files is brought into a memory of the rules engine and the query is executed over the relevant portion of each of the plurality of files thereby reducing the time for execution of the query** (col.17, lines 27-40, where the data coordinator acts as the optimizing function) in an analogous art for the purpose of defining executable sequences to process information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the invention of Gleason and Surasinghe the query delayed within a rules runtime to allow a relevant portion of each of a plurality of files of a data set to be determined and brought into a memory of the rules engine, the relevant portion of each of the plurality of files based upon the query, wherein the query is

executed over the relevant portion of each of the plurality of file as taught by Scheurich since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Further with respect to claim 1, which recites the limitation of “**thereby reducing the time for execution of the query**” which is being interpreted by the Examiner as a statement of intended use. As such the limitation is not given any patentable weight in keeping with the guidelines of MPEP 7.37.09: a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim 2

Gleason teaches **the method of claim 1, wherein the operations are at least one of transactions internal to a business enterprise and transactions external to a business enterprise** (0068 applications that input or amend data on an interactive basis before arriving at the final values, such as budgeting (transaction), where the Examiner understands that it was old and well known in the art at the time the invention was made that budgeting was a transaction type that could have been performed either internal or external to an enterprise. Further the Examiner understands that within a workflow process a transaction can only be either internal or external and therefore any reference to a workflow process with the step of executing would read on this claim).

Claim 3

Gleason teaches **the method of claim 1, wherein the operations comprise passing XML formatted messages according to the workflow** (0028 business process management engine to access a Microsoft COM.RTM (Component Object Model) through the use of a SOAP (Simple Object Access Protocol)/XML (eXtensible Mark up Language) services and 0048 Any client application capable of generating an HTML request that complies with the SOAP standard, and that conforms to a request layout described in WSDL file, can use SOAP services as a way of communicating with the process engine, where the Examiner understand that the process engine executes the workflow process 0011).

Claim 5

Gleason teaches **the method of claim 1, wherein the computer changing the business rules and applying the changed business rules during execution of the workflow comprises the computer implementing a changed business rule while avoiding at least one of suspending, recompiling and redeploying the workflow** (0068, The COM layer additionally provides a local cache capability for the API information. Performance is improved as any information already returned from a server based process engine remains available locally at the client. The cache layer can persist itself to disk and therefore a client application can be coded to continue working while disconnected from the process engine. Method calls are provided in the COM layer to allow the cache to be refreshed from the process engine and so reflect any updated information.)

Claim 7

Gleason teaches **the method of claim 1, wherein providing a correlation between the business rules applied to the nodes and corresponding affected operations comprises the computer providing a correspondence between a specific business rule executed at a node and a resultant state of an operation within the workflow of the automated business process** (0082 the process engine provides monitoring of the progress of active processes and displaying log information for processes that have run, where the Examiner understands that it was old and well known in the art at the time the invention was made that a log would contain the status and results of an operations step)

Claim 16

Claim 16 is substantially similar to claim 1 and is therefore rejected for substantially the same reasoning given above with regards to claim 1.

Claim 17

Claim 17 is substantially similar to claim 3 and is therefore rejected for substantially the same reasoning given above with regards to claim 3.

Claim 19

Claim 19 is substantially similar to claim 5 and is therefore rejected for substantially the same reasoning given above with regards to claim 5.

Claim 20

Claim 20 is substantially similar to claim 7 and is therefore rejected for substantially the same reasoning given above with regards to claim 7.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gleason (US Publication 2003/0195762 A1), Surasinghe (US Patent 7,124,145 B2) and Scheurich et al (US Patent 7,174,342 B1) as applied above and in further view of Agarwal et al (An operational Approach to the design of workflow systems, published 2000).

Claim 6

Gleason teaches **The method of claim 1, wherein optionally changing the business rules and applying the changed business rules during execution of the workflow** (0022 and 0025). Further Gleason teaches a decision tree based process map (0017) commonly associated with if/then type of program at the time the invention was made; however Gleason does not expressly teach **the computer utilizing at least one declarative if/then statement.**

Agarwal teaches **the computer utilizing at least one declarative if/then statement** (pg. 550 If the test result is false then an approval activity. If the result of the test is true the approval is skipped. Class 'if' representing decisions that can be automatically taken by the workflow enactment service) in an analogous art for the purpose of modeling the workflow system (abstract)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Agarwal in the invention of Gleason, Surasinghe and Scheurich to allow for the ease of non-technical person's understanding and management of the process structure (Agarwal, 554). Further the claimed invention is merely a combination of old elements, and in the combination each element

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merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Stefanescu et al (US Pub. 2003/001395) teaches leveraging time elapsed in querying data, see par. 0096-0105
- Levey et al; (US Patent 5,600,831) teaches postponing generating queries plans until run-time, see for example col. 3, lines 32-37.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FOLASHADE ANDERSON whose telephone number is

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(571)270-3331. The examiner can normally be reached on Monday through Thursday 8:00 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Folashade Anderson/
Examiner, Art Unit 3623

/Andre Boyce/
Primary Examiner, Art Unit 3623